

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for preparing a cured product comprising an aggregate and a binder system, said binder system being derived from an aqueous mixture of amorphous silica, one or more bases, and optionally additives, the method comprising:

(1)

- a) mixing the aggregate, the one or more bases and optionally additives and water to form a first component (1A);
- b) providing amorphous silica, optionally mixed with water, as a second component (1B);
- c) mixing together the first and second components (1A) and (1B); and
- d) allowing the mixture to cure;

or

(2)

- a) mixing aggregate and amorphous silica and optionally additives and water to form a first component (2A);
- b) providing the one or more bases, optionally mixed with water, as a second component (2B);
- c) mixing together the first and second components in (2) (2A) and (2B); and
- d) allowing the mixture to cure.

2. (Original) A method according to claim 1 wherein the base is selected from an alkali metal organosiliconate, alkali or alkaline earth metal hydroxides, alkali or alkaline earth metal silicates, aluminium silicates, iron(II) and iron(III) silicates and mixtures thereof, alkali or alkaline earth metal pyrosilicates, aluminium pyrosilicates, iron(II) and iron(III) pyrosilicates and mixtures thereof, alkali or alkaline earth metal carbonates, alkali or alkaline earth metal bicarbonates, alkali or alkaline earth metal phosphates, alkali or alkaline earth metal pyrophosphates, ammonia, organic amines, and cements, and combinations thereof.

3. (Currently amended) A method according to claim 2 wherein the alkali metal organosiliconate is selected from sodium and potassium salts of a lower alkyl organosiliconate such as methyl silicconate, ethyl silicconate, propyl silicconate, or butyl silicconate, or of or an aryl silicconate such as phenyl silicconate.

4. (Original) A mineral product according to claim 2, wherein the alkali metal organosiliconate is potassium methyl siliconate.

5. (Currently amended) A method according to claim 2, wherein the base is selected from the group consisting of alkali metal hydroxides, alkaline earth metal hydroxides and cements, preferably selected from sodium hydroxide, potassium hydroxide and calcium hydroxide.

6. (Currently amended) A method according to any of claims 1-5 claim 1, wherein the aggregate is selected from the group consisting of organic or inorganic fibres, and organic particles and inorganic particles.

7. (Currently amended) A method according to claim 6 wherein the organic or inorganic fibres are selected from the group consisting of silicon-containing fibres, metal fibres, oxide fibres, carbon fibres, glass fibres including micro glass fibres, Rockwool fibres, processed mineral fibres from mineral wool, volcanic rock fibres, wollastonite fibres, montmorillonite fibres, tobermorite fibres, biotite fibres, atapulgite fibres, calcined bauxite fibres, aromatic polyamide fibres, aromatic polyester fibres, aromatic polyimide fibres, cellulose fibres, cotton fibres, flax fibres, rubber fibres, and fibres of derivatives of rubber, polyolefin fibres including polyethylene and polypropylene fibres, polyacetylene fibres, polyester fibres, acrylic fibres, and modified acrylic fibres, acrylonitrile fibres, elastomeric fibres, protein fibres, alginate fibres, poly(ethylene terephthalate) fibres, polyvinyl alcohol fibres, aliphatic polyamide fibres, polyvinylchloride fibres, polyurethane fibres, vinyl polymeric fibres, and viscose fibres, modified by any chemical or physical processes, and any mixtures thereof.

8. (Currently amended) A method according to claim 6 wherein the organic or inorganic particles are selected from the group consisting of silica particles such as ground quartz and silica gel particles, other ground mineral particles such as heavy spar, bentonite, diatomite, dolomite, feldspar, kaolin, spherical and hollow particles, carbon particles, talc, mica, vermiculite, perlite, pumice, kieselguhr, aluminium silicate, chalk, fly ash, pulverised pulverized plant shells, as well as porosity-enhancing bodies such as mica, chalk, expanded perlite or exfoliated vermiculite, or and combinations thereof.

9. (Currently amended) A method according to any of claims 1-5 claim 1 wherein the additives are selected from the group consisting of surfactants, organic solvents, accelerators and retardants.

10. (Currently amended) A method according to claim 9 wherein the surfactant is selected from the group consisting of non-ionic, anionic, and cationic surfactants; for example anionic surfactants such as derivatives of fatty acids wherein the negative charge is provided by a free carboxyl group, a sulphonate group, or a phosphate group, and such anionic surfactants commonly used in rinse aids; non-ionic surfactants such as esters or partial esters of fatty acids with an aliphatic polyhydric alcohol such as e.g. ethylene glycol, glycerol, sorbitol, etc., and the polyoxyethylene and polyoxypropylene derivatives of these esters, and such non-ionic surfactants commonly used in rinse aids; cationic surfactants such as derivatives of fatty acids, wherein the positive charge is provided by one or more quaternary ammonium groups, and such cationic surfactants commonly used in detergents; for example fatty acids containing from 6 to 22 carbon atoms such as caproic, octanoic, lauric, palmitic, stearic, linoleic, linolenic, olesteric, and oleic acid.

11. (Currently amended) A material prepared by a method according to ~~any of claims 1-5~~ claim 1.

12. (Currently amended) A material comprising amorphous silica, one or more bases, optionally additives, and aggregate in the form of sub-micron thin flakes or scales of a mineral, such as ~~vermaeulite, glas, or mica~~.

13. (Currently amended) A cured product comprising amorphous silica, one or more alkali metal organosiliconates, and optionally additives[[],,].

14-37. (Canceled)

38. (New) The method according to claim 3, wherein the lower alkyl organosiliconate is selected from the group consisting of methyl siliconate, ethyl siliconate, propyl siliconate and butyl siliconate.

39. (New) The method according to claim 3, wherein the aryl siliconate is phenyl siliconate.

40. (New) The method according to claim 5, wherein the metal hydroxide is selected from the group consisting of sodium hydroxide, potassium hydroxide and calcium hydroxide.

41. (New) The method according to claim 7, wherein said polyolefin fibers are polyethylene fibers or polypropylene fibers.

42. (New) The method according to claim 8, wherein said ground mineral particles are selected from the group consisting of heavy spar, bentonite, diatomite, dolomite, feldspar, kaolin, spherical and hollow particles.

43. (New) The method according to claim 8, wherein said porosity-enhancing bodies are selected from the group consisting of mica, chalk, expanded perlite and exfoliated vermiculite.

44. (New) The method according to claim 10, wherein said anionic surfactant is a derivative of a fatty acid, wherein the negative charge is provided by a free carboxyl, sulfonate or phosphate group.

45. (New) The method according to claim 10, wherein said non-ionic surfactant is an ester or partial ester of a fatty acid having an aliphatic polyhydric alcohol moiety, a polyoxyethylene derivative thereof or a polyoxypropylene derivative thereof.

46. (New) The method according to claim 10, wherein said cationic surfactant is a derivative of a fatty acid, wherein the positive charge is provided by one or more quaternary ammonium groups.

47. (New) The material of claim 12, wherein said aggregate is selected from the group consisting of vermiculite, glass and mica.